

**Supplementary Figure 2** Quantification of intravenously injected GEMs *in vivo*. Mice with established human U87 flank tumors seeded with 1 x  $10^6$  cells were injected with eGFP:ffluc/hIL-12 GEMs. *In vivo* presence of macrophages was measured by bioluminescent imaging. (A) Fold change in bioluminescent signal localized to tumor from mice in which  $1.5 \times 10^6$  GEMs were injected via the tail vein was calculated over baseline (day -1) at days 1, 7, and 14. Data points represent individual mice, bar represents mean (n = 6 mice, 1 experiment). (B) Standard curves constructed from day 0 intratumoral injection of  $1.565 \times 10^4 - 1.0 \times 10^6$  GEMs; each data point represents one mouse (n = 3 – 6 mice from 1 experiment).